

Local Hazard Mitigation Plan ANNEX

City of Fairfield, California

Introduction

The City of Fairfield is a moderate-sized city in Solano County, California. The City has a population of 102,400 people, based on the 2004 California Department of Finance Estimate. Last year, the City's budget was \$57 million, and it employs 600 people. City services include police, fire, and water, with sewer provided by an independent District that includes Suisun City.

The Planning Process

The City has a Health and Safety Element in its General Plan, last updated in 2002, that discusses fire, earthquake, flooding, and landslide hazards. In addition, the City routinely enforces the requirements of the California Environmental Quality Act (CEQA) requirements (which, since 1988, have required mitigation for identified natural hazards). The City's effort has focused on building on these pre-existing programs and identifying gaps that may lead to disaster vulnerabilities in order to work on ways to address these risks through mitigation.

Many of the activities conducted by the City were fed into the planning process for the multi-jurisdictional plan. The City participated in various ABAG workshops and meetings, including the general "kick-off" meeting. Finally, the City provided information on facilities that are viewed as "critical" to ABAG.

Key City staff met on three occasions to identify and prioritize mitigation strategies appropriate for the City. Departments involved in the meetings included the Planning Department, Building Official, Public Works, and Fire. At the meetings, staff reviewed the list of critical facilities and discussed priorities for mitigation strategies. The City provided the opportunity for the public to comment on the mitigation strategies selected by City staff at the City Council meeting on July 19, 2005. The mitigation strategies adopted in July 2005 will become an implementation appendix to this Safety Element.

Hazard and Risk Assessment

The ABAG multi-jurisdictional Local Hazard Mitigation Plan, to which this is an Annex, lists nine hazards that impact the Bay Area:

- ❑ Five related to earthquakes:
 - faulting
 - shaking
 - earthquake-induced landslides
 - liquefaction
 - tsunamis
- ❑ Four related to weather:
 - flooding

- landslides
- wildfires
- drought

These nine hazards also impact the City of Fairfield and have been analyzed in this document.

While the City has undertaken a number of general hazard mapping activities since the first General Plan Health and Safety Element was prepared by the City, all of these maps are less detailed and are not as current as those shown on the ABAG website at <http://quake.abag.ca.gov/mitigation/>.

The City has had landslides in the hills north, west, and south of the City. Slides in the Rolling Hills and Rancho Solano neighborhoods threatened (but did not damage) homes and public infrastructure. The City and local neighborhood associations have undertaken geotechnical repairs of these slides and other mitigation efforts.

Information on disasters declared in Solano County is at <http://quake.abag.ca.gov/mitigation/disaster-history.html>.

The City examined the hazard exposure of City urban land based on the information on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickdbh2.html>. Of the 15,700 urban acres in the City:

- ◆ **Earthquake faulting** – An active fault runs through southwestern Fairfield, in the Cordelia/Green Valley area. **218 acres** are impacted by CGS Fault Zones
- ◆ **Earthquake shaking** – **14,400** acres are in the highest two categories of shaking potential, in large part because of regional earthquake faults as well as the Green Valley Fault in southwestern Fairfield.
- ◆ **Earthquake-induced landslides** – **ABAG** has not completed studying CGS earthquake-induced landslides. Note that 305 acres of urbanized land in the City have existing landslides.
- ◆ **Earthquake liquefaction** – **2,991** acres are in areas of moderate, high, or very high liquefaction susceptibility;
- ◆ **Tsunamis** – The mapping of the inundation area has not been completed at this time. However, Fairfield does not border San Francisco Bay, and the potential impacts of tsunamis are likely to be minimal.
- ◆ **Flooding** – **939** acres are in the 100-year flood plain, while an additional 1,599 acres are in other flood-prone areas;
- ◆ **Landslides** – **305** acres are in areas defined as “mostly a landslide area” (existing landslides);

- ♦ **Wildfires** – **3,509** acres are subject to high, very high, or extreme wildfire threat, with 8,009 acres in the wild land-urban interface threat area. This risk is exacerbated by the numerous hillsides lying north, south, and west of the City proper, along with the suburban neighborhoods interfacing with such hillsides.
- ♦ **Dam Inundation** – **3,104** acres are subject to dam inundation. This risk is relatively small, however, as the dams identified in this analysis are largely small water retention facilities which will have minimal life safety impacts in Fairfield.
- ♦ **Drought** – **all 15,700 acres are subject to drought.** Fairfield, like all California jurisdictions, faces potential impacts from longer-term periods of drought. The City owns its water utility and has secured adequate water supplies for all but the most severe drought situations.

The City also examined the hazard exposure of infrastructure based on the information on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickdbh2.html>. Of the 425 miles of roadway in the City,

- ♦ **Earthquake faulting** – **10 miles** of roadway are within the CGS Fault Zone study area. This reflects the fault lines found in southwestern Fairfield (Green Valley/Cordelia). **Eight (8) miles of pipeline** are similarly affected.
- ♦ **Earthquake shaking** – **33 miles** of roadway are in the highest two categories of shaking potential.
- ♦ **Earthquake-induced landslides** – the California Geological Survey has not completed mapping of this hazard in the City of Fairfield. Roads likely to be impacted by earthquake-induced landscapes include primarily minor residential streets, although McGary Road, a currently closed road south of Fairfield proper, could be impacted by a landslide event.
- ♦ **Earthquake liquefaction** – **Seventy-two (72) miles** of roadway are in areas of moderate, high, or very high liquefaction susceptibility.
- ♦ **Tsunamis** – The mapping of the inundation area has not been completed at this time. However, Fairfield does not border San Francisco Bay, and the potential impacts of tsunamis are likely to be minimal.
- ♦ **Flooding** – **25 miles** of roadway are in the 100-year flood plain, while an additional **54 miles** are in other flood-prone areas;
- ♦ **Landslides** – **Nine miles** of roads are in areas of existing landslides;
- ♦ **Wildfires** – **60 miles** of roadway are subject to high, very high, or extreme wildfire threat, and **188 miles** of roads are in wildland-urban interface threat areas.
- ♦ **Dam Inundation** – **48 miles** of roadway is in an area subject to dam inundation;

- ♦ **Drought – is not a hazard for roadways.**

Finally, the City examined the hazard exposure of critical health care facilities, schools, and city-owned buildings based on the information on ABAG's website at

<http://quake.abag.ca.gov/mitigation/pickcrit.html>. Of the critical facilities in the City,

- ♦ **Earthquake faulting** - There are active fault zones in Fairfield, but no health care facilities are impacted. **Two** schools, **one** County facility, and **one** City facility are impacted. In addition, **two** bridges are potentially impacted by earthquake faulting.
- ♦ **Earthquake shaking** - **One** home health care facility, **one** school, and **12** bridges are in the highest two categories of shaking potential;
- ♦ **Earthquake-induced landslides – the California Geological Survey has not completed mapping of this hazard in the City of Fairfield.**
- ♦ **Earthquake liquefaction – nine** health care facilities, six schools, **14** “critical facilities” and **25** bridges and interchanges are in areas of moderate, high, or very high liquefaction susceptibility, four schools are located in these areas;
- ♦ **Tsunamis** –The mapping of the inundation area has not been completed at this time. However, Fairfield does not border San Francisco Bay, and the potential impacts of tsunamis are likely to be minimal.
- ♦ **Flooding – one** critical health care facility, **six** schools, **nine** critical facilities, and **22** bridges and interchanges are in either the 100-year flood plain or in other flood-prone areas;
- ♦ **Landslides – one** bridge or interchange is in an area of existing landslides;
- ♦ **Wildfires – one** school, critical facility, and bridge/intersection is in an area of wildfire threat. However, **two** health care facilities, **eight** schools, **five** critical facilities, and **13** bridges and intersections are located in wildland-urban interface threat areas.
- ♦ **Dam Inundation – three** health care facilities, **one** school, 4 critical facilities, and **14** bridges and intersections are subject to dam inundation;
- ♦ **Drought** – Drought will not affect city buildings directly. However, the city does operate a water-supply distribution system.

There are **four** repetitive loss properties with **nine claims** in the City based on the information at <http://quake.abag.ca.gov/mitigation/pickflood.html>

The City plans to work with ABAG during 2005 to improve the risk assessment information being compiled by ABAG by providing information on unreinforced masonry buildings and soft-story apartments located in the City.

Drought, though a potential problem in the City, is not fully assessed. The City will work with ABAG and various water supply agencies on this issue.

The City plans to work with ABAG to develop specific information about the kind and level of damage to buildings, infrastructure, and critical facilities which might result from any of the hazards previously noted. The ABAG Annex states that ABAG will be doing this work in 2005 through early 2006.

As these impacts are not fully developed, the City has reviewed the hazards identified and ranked the hazards based on past disasters and expected future impacts. One conclusion is earthquakes (particularly shaking), flooding, wildfire, and landslides (including unstable earth) pose a moderately significant risk for potential loss.

Mitigation Activities and Priorities

As a participant in the ABAG multi-jurisdictional planning process, City of Fairfield staff helped in the development and review of the comprehensive list of mitigation strategies in the overall multi-jurisdictional plan. At the meeting, all of the mitigation strategies were reviewed. The tentative decision on priority was made based on a variety of criteria, not simply on an economic cost-benefit analysis. These criteria include being technically and administratively feasible, politically acceptable, socially appropriate, legal, economically sound, and not harmful to the environment or our heritage.

Over time, we are committed to developing better hazard and risk information to use in making those trade-offs. We are not trying to create a disaster-proof region, but a disaster-resistant one. The City of Fairfield already implements many of the recommendations and programs identified during the regional process. We can certainly do more.

These draft priorities were reviewed by City staff. The draft priorities were then provided to the City Council on July, 2005. The final strategies (as shown in the attached Table) will become an *Implementation Appendix* to the City's *Safety Element*.

The Plan Maintenance and Update Process

The City Manager's Office will ensure that *monitoring* of this Annex will occur. The plan will be monitored on an on-going basis. However, the major disasters affecting our community, legal changes, notices from ABAG as the lead agency in this process, and other triggers will be used. Finally, the Annex will be a discussion item on the agenda of the meeting of City department heads at least once a year in April. At that meeting, the department heads will focus on *evaluating* the Annex in light of technological and political changes during the past year or other significant events. This group will be responsible for determining if the plan should be updated.

The City of Fairfield is committed to reviewing and updating this plan annex at least once every five years, as required by the Disaster Mitigation Act of 2000. The City's Director of Planning and Development will contact ABAG four years after this plan is approved to ensure that ABAG plans to undertake the update process. If so, the City again plans to participate in the multi-jurisdictional plan. If ABAG is unwilling or unable to act as the lead agency in the multi-jurisdictional effort, other agencies will be contacted, including the County's Office of Emergency Services. Counties should then work together to identify another regional forum for developing a multi-jurisdictional plan.

The *public* will continue to be involved whenever the plan is updated, and as appropriate during the monitoring and evaluation process. Prior to adoption of updates, the City will provide the opportunity for the public to comment on the updates. A public notice will be posted prior to the meeting to announce the comment period and meeting logistics.